

Learn Git and GitHub : Day1 (21stAug2019)

What is Centralized version control (CVC)?

- > Earlier People used to use Centralized version control system by storing the different version of code set in drop box or at any other place
- > In CVC central server is the only place where all the versions of the Projects are stored
- > In CVC at your local you can have the current\Latest version of the project
- > In CVC when you need a previous version project then you have to download it from central system and at the same time you have to remember all the version. Then what in case the central system got crashed.

In case of no Internet connection won't be able to get any version from central repository and to overcome this problem Distributed version control system comes in to the picture.

What is Distributed version control system ?

- > In DVCS Copy of code will be available on all the developers along with the central repository. In that way every developer has the backup of the code

Why GIT is Distributed Version Control System?

- > In case of multiple team members working on a same website can individual can concentrate on the feature he is responsible to develop without interfering other's work.

Why Do we need Version Control System ?

Maintaining versions of code or data helps in analyzing the project at later point of time to Analyse where exactly more time had been taken.

What is Git?

- > Git is a distributed version-control system for tracking changes in source code during software development.
- > It is designed for coordinating work among programmers, but it can be used to track changes in any set of files.

What is Git Bash?

Git Bash is an application for Microsoft Windows environments which provides an emulation layer for a Git command line experience

What is Git Hub?

GitHub is a code hosting platform for collaboration and version control.

Setup Git Bash

Check if Git is setup on your system by accessing windows button and trying to search git. If git Bash appears then git is already installed on system. If not install git using below link:

Download Git :

<https://git-scm.com/download/win>

Help to setup Git:

https://www.youtube.com/watch?v=J_Clau1bYco

Setup Git Hub

Create a Github account using below url :

<https://github.com>

Help to setup Git Hub:

https://www.youtube.com/watch?v=J_Clau1bYco

Git Configuration

-> Once the Installation is done then configuration of git would be required which connects git with git hub.

-> To configure the git access Git Bash from windows button Immediately after git setup on system And execute below commands

```
git config --global user.name "ibagga"
```

```
git config --global user.email "ishu1070@gmail.com"
```

Check already existing configuration status : What's the github account local git is associated with

```
$ git config --list
```

Create a Local Git Repository\Folder

Create a folder on your local system and you can convert it in to Local Git Repository in **2 ways**

- a) **By Initializing--** : One can take a local directory that is currently not under version control, and turn it into a Git repository and later push to remote repository
- b) **By Cloning -----**: One can clone an existing GitHub repository to further add the changes

a) By Initializing

-> Initializing happens when *there is no code on remote repository to clone or at the initial stage of the project*

-> End-user have to initialize the local folder using command `git init` and then push the code to remote repository so that other user can clone and use that project

-> End user has to manually create a repository in Git Hub

-> Now Local repository should be connected with remote repository using below command

```
git remote add origin "https://github.com/ibagga/STE.git"
```

-> To know the status of association of local repository and remote repository use below command: Command to know the local and remote repository connection

status : `git remote -v`

-> First check if all the file are tracked `Git Status`

-> Add all files for tracking `Git add - A` (To track all files)

What is staging in GIT?

Staging is a time when you modify something in a file or

adding a new file all together and don't commit Using

command `git status`(User will be able to see what are the

changes happened)

• Git Commit to save the branch file changed at Local Repository

```
Git commit -a -m "Comment"
```

Learn Git and GitHub : Day2 (23rd Aug2019)

Topics to be covered

- 1) Familiarize with the terms? Central Repository, Remote Repository, GitHub Repo, Local Repository
- 2) How to create a Repository in GitHub?
- 3) What is cloning? How to clone a repository?
- 4) What is GitPush? And Push Git Code to GitHub?
- 5) See the different versions of code in Git and GitHub?
- 6) What is Branching?